

XXX.—*On the Birds collected by Mr. Robert Hall, of Melbourne, on the Banks of the Lena River between Gikalowa and its Mouth.* By ERNST HARTERT, Ph.D., F.Z.S. *With an Introduction and Field-notes by ROBERT HALL, C.M.Z.S.**

I. PREFACE (by E. HARTERT).

THE collection made by Mr. Hall on the Lena River is of great interest, as our knowledge of the details of distribution of birds in Siberia is very limited. It is interesting to note that the forms of the Upper Lena (Gikalowa) differ in some cases from those of the lower portion of the river. Near Gikalowa forms inhabiting the Baikal district were found breeding, while the specimens from further north are referable to the North-Siberian subspecies.

The journey having been rapidly made, and the collections having been entirely formed along the river, Mr. Hall can only have obtained specimens of a portion of the birds that inhabit that district of Eastern Siberia, and this is hardly sufficient to give us an idea of the avifauna, except so far as it is exhibited in summer on the river-bank. The skins are mostly much worn and badly prepared, so that some difficulty often presents itself in making out the subspecies in question. Nevertheless the collection increases our knowledge of Siberian ornithology considerably, and we are much indebted to Mr. Hall for his energetic enterprise in making it.

The skins are in the Hon. Walter Rothschild's Museum at Tring.

Mr. Hall's notes are enclosed in square brackets.

II. INTRODUCTION (by ROBERT HALL).

[This journey was practically commenced by me at Irkutsk on June 5th, 1903, with Mr. R. E. Trebilcock as a companion, and with a Russian interpreter †. To the ornithologist the Lena valley would, I thought, be a perfectly

* The author of this paper wishes it to be understood that he is solely responsible for the nomenclature adopted.

† I take this opportunity of acknowledging the kindly services rendered at Vladivostock by Mr. Richard Hawker, of South Australia.

new field, so that I decided to explore it on my way from Australia to Europe. Before the journey to and from the navigable waters of this great river was completed it was necessary to hire some two hundred and ten horses. The mouth of the Lena was reached on July 12th. There we found the only piece of true tundra met with by us. The arrival at Irkutsk on our return took place on August 21st. The weather, according to report, was the finest that had been experienced for four years past, and certainly we had much sunshine during almost the whole of our tour. Twelve inches below the surface the ground was frozen in July. The total number of specimens collected was four hundred and one. Among them Fringillidæ were abundant. The birds, excepting at Yakutsk, were all collected upon the river-banks, and none were obtained higher up the river than Gugalowa. About that place the avifauna shewed a change, those species met with down the stream being markedly different from those found immediately up the stream. The distance between Gugalowa and the delta of the river is three thousand miles. At some sixty spots between these two extremes we were able to land while the small steamboat took in wood for fuel. Upon the banks, as far as Bulun, pines, firs, beeches, and willows grew densely, the beeches and pines to about Yakutsk and the firs for the most part to Bulun, where trees became stunted or absent.

Between Gugalowa and Yakutsk there is a regular summer river-trade. From Yakutsk a small boat visits the fishing-stations lower down the river. We were given the opportunity* of proceeding from Yakutsk to the river-mouth in a small steamboat which was taking provisions to a Russian Geographical Expedition just outside in the Arctic Ocean. In Yakutsk during May birds are numerous, while in June they have proceeded further north, and in part have dispersed for breeding.

For much of the time we had the advantage of a midnight

* By the kindness of Mons. Gandatti, the present Governor of Yakutsk, and Mons. Zooyef, the chief of the town of Olekminsk.

sun, but the serious disadvantage of vast myriads of mosquitoes which beset us during the whole twenty-four hours nearly every day. Ornithologists who would know more of these parts must of necessity be provided with some defence against the insects that try to impoverish the blood; many valuable sleeping-hours will thus be saved.]

III. LIST OF THE SPECIES, WITH REMARKS, AND WITH THE COLLECTOR'S FIELD-NOTES.

1. STERNA LONGIPENNIS Nordm.

Sterna longipennis Nordmann in Erman's Verz. v. Th. u. Pfl. p. 17 (1835: Mouth of the Kuchtui, near Ochotsk).

♂ ad. 200 miles below Yakutsk. "Bill black, extreme tip whitish; eyes black; legs coral-red." (No. 165.)

Two young in down, 200 miles north of Yakutsk, 1. vii. 1903. These two birds (Nos. 149, 150) are like the downy young of *Sterna fluvialilis*. They were erroneously marked as those of *Larus ridibundus* (!). "Legs flesh-coloured; nails blackish; bill deep flesh-coloured with black tip; nail of bill creamy white."

[Near Yakutsk also we observed what appeared to be this species. Our specimen was one of many that were nesting in a lagoon just off the river.]

2. LARUS ARGENTATUS VEGÆ Palmén.

Larus argentatus var. *vegæ* Palmén, Vega-Expéd., Vetensk. v. p. 370 (1887: Behring Sea).

2 ♂, 1 ♀. Bulun, Lena River, 7. vii., 11. vii. 1903. (Nos. 222, 225, 229.)

1 ♀. Miankiaria River, one of the tributaries of the Lena, 22. vii. 1903. (No. 331.)

"Iris brown; orbital ring coral-red or deep red; legs and feet creamy white, with a delicate bluish tinge; claws deep brown or blackish; bill yellow, with a large patch of red near the tip of the lower mandible." Wings about 45 cm.

Larus argentatus vegæ is the eastern representative of *L. argentatus argentatus*. It differs in the colour of the orbital ring and the somewhat darker grey back, and from

L. argentatus cachinnans plainly enough by the colour of the feet. Mr. W. H. Kobbe's article in 'The Auk,' 1902, pp. 19-24, may be of some interest with regard to the Gulls visiting the Californian coast in winter (though I believe American ornithologists have long been aware of the facts mentioned by this author), but his attempt to unite the North-European *argentatus* and the East-Siberian *vega*, after the examination of a series of American non-breeding birds, had better have remained unprinted.

[These birds I secured at Bulun, where they were nesting. The young I saw at Vitim and further up the stream after 8. viii. 1903. This was the first date that I noticed the young flying. The Bulun birds were being terrorised by a Falcon, which would occasionally sally out from the cliffs and chase the timid Gulls away.]

3. *LARUS CANUS* Brünn.

Larus canus Brünnich, Orn. Bor. p. 43 (1764: Iceland).

♀ ad. 10 miles west of Yakutsk, 22. vi. 1903. (No. 117.)

♀ ad. 200 miles below Yakutsk, 1. vii. 1903. (No. 151.)

"Iris yellow; orbital ring red; legs and feet yellowish (olive-yellow); bill deep olive-brown, tip yellow."

[An example of this species was shot on a lake some ten miles west of Yakutsk. Others I found nesting on the floating weeds of a lagoon adjacent to the river immediately below Yakutsk, 1. vii. 1903. This is some eighteen hundred miles up the river from the mouth. The nest was 17" across, with a slight depression for the eggs.]

4. *LARUS RIDIBUNDUS* L.

Larus ridibundus Linnæus, Syst. Nat. ed. xii. p. 225 (1766: "Habitat in Mari Europæo").

5 ♂ ♀ ad. 200 miles below Yakutsk, 2, 3. vii. 1903. (Nos. 148, 160, 164.)

♂ juv. Lena just below Aldan, 29. vii. 1903. (No. 353.)

[On July 29, near Yakutsk, I shot a young bird flying which had just left its nest. It was the only bird of this species on the river-beach at the time.]

5. LAGOPUS MUTUS (subsp. ?).

♂ ad., ♀ ad. Bulun, 8. vii. 1903 (♀ no. 210, no. of ♂ lost); 4 pulli, belonging to ♀ no. 210. ♀ ad.: "Bill black, small red spot above eye, claws brownish." Nestlings: "Upper mandible deep brown, lower bluish. Claws and eyes brownish." The nestlings (of the size of Sparrows) are brownish or buffy yellow below. Middle of crown foxy rufous, surrounded by a blackish line. Blackish line from base of bill towards crown. Sides of head buffy yellow, with longitudinal black patches behind the eyes and ear-coverts. First little feathers on back black with rusty yellow marks and tipped with white. Wing-feathers blackish with buff markings and edges.

I am uncertain about the name of the Siberian Rock-Ptarmigan. Mr. Grant contends that it ought to be called "*Lagopus rupestris*," or as I should say *Lagopus mutus rupestris*, as even Mr. Grant pronounces it to be only a "northern" form of *L. mutus*. The name *rupestris*, however, is based on the Hudson Bay form. There are apparently several forms in Arctic America alone, so that it is not at all certain that the Siberian form is the same as that from Arctic America. If it differs, it has apparently no name, unless it is the same as the Commander Islands form, i. e. *ridgwayi* of Stejneger. I have no material to settle this question.

[This species we found among the fragmentary stones in very rough valley. My companion caught a nestling, and his action caused the captive to call so loudly as to bring its mother immediately. Then she flew away at once as if wounded. Five newly hatched young were caught. Being yellowish in colour they corresponded with the lichen and rock environment. One thought to hide itself by simply crouching and placing its head under a stone. As it remained thus for more than ten minutes we photographed it. The male kept quite out of sight. In winter large numbers of this bird are netted and sold for the equivalent of a penny farthing; in Yakutsk for a penny halfpenny.]

6. *EUDROMIAS MORINELLUS* (L.).

Charadrius morinellus Linnæus, Syst. Nat. ed. x. p. 150 (1758: "Habitat in Europa." Typical locality Sweden, from first quotation and diagnosis: "Fn. Succ. 158, 160").

♂ ad. Bulun, 8. vii. 1903. "Bill black. Legs deep brown. Iris dark." (No. 209.)

Pullus. Bulun, 8. vii. 1903. (Young of no. 209.) (No. 211.)

[This Plover was found upon a stony rise some 800 ft. approx. above sea-level. It was observed in one place only and but four birds in all. Two were mated. This pair had young in down, and when they were observed both parents tried to decoy us away, the male keeping at a distance and shewing great excitement. The female fluttered away in front, quite near her young, only one of which we could discover. This young bird agreed admirably in colour with the mosses, stones, and lichens with which it was surrounded. When found it had its chin close upon the ground, keeping so for at least ten minutes. Feeling that something was wrong it then rose and ran quickly away, the mother bird following it at about the same pace. While my companion was watching these actions I was one hundred yards away with the male flying past me and always in an opposite direction to that in which the young bird was. The position of the breeding-ground was away from water and upon the highest stony and treeless hills in the neighbourhood.]

7. *ÆGIALITIS HIATICULA* (L.).

Charadrius hiaticula Linnæus, Syst. Nat. ed. x. p. 150 (1758: "Habitat in Europa et America ad ripas." Typical locality Sweden, ex 'Fauna Suecica,' 159.)

1 ♂, 2 ♀. Mouth of the Lena, 12. vii. 1903. "Bill rich deep yellow with black tip. Legs yellow, claws blackish. Eye black." (Nos. 273, 274, 275.)

8. *ÆGIALITIS DUBIUS* (Scop.).

Charadrius dubius Scopoli, Del. Faun. et Flor. Insubr. ii. p. 93 (1786, ex Sonnerat; typical locality Luzon).

♀ ad. Ustkutsk, river Lena, 2. vi. 1903. "Legs brown, bill black, skin round eye yellow." (No. 55.)

This specimen, although a female, has the wing fully 118 mm. long, and the black band on the forehead rather narrow (about 6 to 6.5 mm.).

9. *HETERACTITIS INCANUS BREVIPES* (Vieill.).

Totanus brevipes Vieillot, Nouv. Dict. d'Hist. Nat. vi. p. 410 (1876: "Pays inconnu." Typical locality Timor! Cf. Pucheran, Rev. et Mag. de Zool. 1851, pp. 370, 570).

♂ ♀. Upper Lena River, 9. vi. 1903. "Legs yellow, bill and nails blackish." (Nos. 29, 37.)

10. *TRINGOIDES HYPOLEUCOS* (L.).

Tringa hypoleucos Linnæus, Syst. Nat. ed. x. p. 149 (1758: "Hab. in Europa." Typical locality Sweden; first quotation 'Fauna Suec.' 147).

Various places along the Lena River. (Nos. 1, 15, 152, 66.)

Nestlings were taken on July 3rd, 1903. (Nos. 167 to 170.)

[A bird was shot while perched upon a bush and shewing signs of strong emotion. In a few minutes peeping cries from a tangle of dog-roses, fallen limbs, and "horse-tails" indicated that young birds were near. By careful search four were found in couples. They had just been hatched, 3.7.03. The site was among the closely growing firs on a high mouldering bank of the river about four hundred miles below Yakutsk.

Another pair we found breeding upon the high banks of the river some two hundred miles below Yakutsk, on July 1st. One of the old birds was perched upon a tree.]

11. *TOTANUS GLAREOLA* (L.),

Tringa ocropus β . *glareola* Linnæus, Syst. Nat. ed. xii. p. 250 (1766: Habitat in Europa. First quotation and diagnosis from 'Fauna Suecica,' 185; typical locality therefore Sweden).

Mouth of Lena River, 12. vii. 1903 (Nos. 277, 278) and at Gikalowa, 17. viii. 1903 (No. 393).

12. PAVONCELLA PUGNAX (L.).

Tringa pugnax Linnæus, Syst. Nat. ed. x. p. 148 (1758
 "Habitat in Europa minus boreali." Typical loc. Sweden :
 ex 'Fauna Suecica,' 145).

3 ♀ ad. Mouth of Lena River, 12. vii. 1903. (Nos. 268,
 269, 270.)

Besides some variation in the coloration of the upper surface (one specimen being less black than the other two), there is a remarkable difference in the colour of the legs and feet : one has them "a blend of blue and yellowish green" (slaty black in skin) ; one "delicate flesh" with black patches in front (whitish with black patches in skin) ; one entirely uniform "delicate flesh" (whitish in skin).

The occurrence of this Sandpiper so far north in Siberia is remarkable.

13. TRINGA TEMMINCKII Leisl.

Tringa temminckii Leisler, Nachtr. zu Bechstein's Naturg. Deutschl. i. pp. 63-73 (1812 : on the Main in Germany) *.

♂ ♂ ♀ ad. Bulun and Miankiaria, 7, 8, 22. vii. 1903. Nestlings from the same places. Adults : "Legs pale horn-coloured, tending to nutty brown. Bill brownish black. Iris dark." Nestlings : "Bill brownish black, legs pale bluish, eyes dark." (Nos. 199 to 203, 231 to 235, 247, 323 to 327.)

[The first specimen seen was among the willows at Bulun on July 6th. It was alone and feeding among buttercups in the mud. There was not the slightest fear of me shown as I walked up to it in the broad light of a real and a mock sun at 9.30 P.M. On July 7th, with the thermometer at 3° R., I walked along a muddy beach and saw only two birds. In a few moments one, a male, gracefully nestled over two young Stints to soothe them. Almost at once he flapped a yard away to a second couple and warmed them in the same manner. Suddenly he appeared to go into convulsions, and tried to lure me away by his pretended struggles. Not succeeding, he returned again to the young,

* The quotation, as above given, is correct, while in the Cat. B. xxiv. p. 555, it is erroneous.

which were lying with chins closely placed upon the ground. His mate was not to be seen. In a second case observed on July 9th, the male was in charge of the young, and what I took to be the female was seen only twice far overhead, sending its penetrating note to the male beneath. By making a careful survey of the ground we found the four young lying perfectly still, and agreeing in colour with their environment. As the male passed over the young several times he varied his notes of counsel to them. Although but very recently hatched, they kept quite still for thirty-five minutes, during which time we successfully photographed them. This was at 1 o'clock A.M., with an F. 32 stop, an ordinary plate, 15 seconds' exposure, and the sun behind a hill. On July 26th I saw the first flock of eight to ten young abroad, 60 miles below Verlouis. Between Ustkutsk and Vitun, August 14, several little families of five or six were on the wing. We saw one bird cleverly evade two Falcons by a series of dives into the river, and another escape in the weeds of the river-bank.]

14. *TRINGA ACUMINATA* (Horsf.).

Tringa acuminatus Horsfield, Trans. Linn. Soc. xiii. p. 192 (1821: Java).

♀ ad. Mouth of Lena River, 12. vii. 1903. (No. 271.)
 "Bill blackish blue, basal third dull deep yellow. Legs yellowish, eyes brown."

15. *TRINGA ALPINA* L.

Tringa alpina Linnæus, Syst. Nat. ed. x. p. 149 (1758: "Lapponia").

♂ ad. Mouth of Lena River, 12. vii. 1903. (No. 272.)

16. *GALLINAGO GALLINAGO* (L.).

Scolopax gallinago Linnæus, Syst. Nat. ed. x. p. 147 (1758: "Habitat in Europa." Typical loc. Sweden, ex 'Fauna Suecica,' 143).

♂ ad. Near Yakutsk, on the Lena River, 22. vi. 1903.

The occurrence so far east is interesting. (No. 129.)

[In the swampy country some twenty miles west of Yakutsk, I secured on June 22nd a specimen that appeared

to be nesting. It rose and dropped some ten yards away, and continued to do so when followed, trying to delude us by pretending to have a broken wing.]

17. *CRYMOPHILUS FULICARIUS* (L.).

Tringa fulicaria Linnaeus, Syst. Nat. ed. v. p. 148 (1758: "Habitat in America." Ex Edwards, pl. 142).

♂ ad. Lena River mouth, 12. vii. 1903. "Bill rich deep yellow, blending into dark brown towards the tip. Legs pale bluish, lobes yellowish." (No. 276.) The crown is striped with buffy edges to the feathers. Why is the crown uniform slate-grey in some examples, more or less striped in others, apparently equally adult?

18. *ANSER SERRIROSTRIS* Swinh.

Anser segetum var. *serrirostris* Swinhoe, P. Z. S. 1871, p. 417 (winter visitor in China: Amoy, Shanghai, Wanchow—also Trans-Baikalia).

♂ ♀. Miankiaria River, Lena River, 22, 23. vii. 1903. "Bill black, with subterminal orange band; legs orange; iris brown; nails black."

I suppose that this form is an eastern subspecies of *Anser anser* Bodd.

[Only in one place did I learn of a nesting-ground, and then the season was concluding. It was just within the mouth of the River Miankiaria, a tributary of the Lena, near its mouth. We approached a dozen birds preening their feathers upon the near bank. Quickly entering the river they swam and dived away. The head and part of the neck alone were above the water when floating. The process of moult shewed a new series of wing-quills still very short. As soon as a second flock sighted our approaching steamer they commenced running rapidly along the bank upon which they had been resting. When close enough, a boat was lowered with a pursuing party, but the stern chase proved to be long. Eventually two individuals sought the bushes on the beach, while the main body escaped by means of the water. One of the hiding birds had its neck close to the ground and extended in a sinuous way, hoping thus to escape. Further

along we observed a third flock with forty birds in it. They, too, started running away, and took to the water only when a rifle-ball was unwisely fired amongst them. They dived far and remained for a considerable time under water, the head and upper portion of the neck alone being visible. Although they were much frightened by the steamer passing through their midst, not a sound escaped them. These birds had their wing-quills about half-grown, while their bodies were very lean. In a fourth flock certain of the birds were floating on the water, others were semi-buoyant, but most of them had their necks in part below the water. It is said by sportsmen in Yakutsk that the Geese pass northwards at the end of April, and return by the Sea of Okhotsk on their southern migration. This, I think, would be about the middle of August of the present year.]

19. *ANAS BOSCHAS* L.

Anas boschas Linnæus, Syst. Nat. ed. x. p. 127 (1758 : "Habitat in Europæ lucibus." Typ. loc. Sweden, ex 'Fauna Suecica,' 97).

♂ ad. 100 miles up the river from Yakutsk, 18. vi. 1903. (No. 95.)

20. *ANAS CRECCA* L.

Anas crecca Linnæus, Syst. Nat. ed. x. p. 126 (1758 : "Habitat in Europæ aquis dulcibus." Typ. loc. Sweden, ex 'Fauna Suecica,' 109).

♂ ad. 100 miles up the river from Yakutsk, 19. vi. 1903. (No. 93.)

21. *FULIGULA FULIGULA* (L.).

Anas fuligula Linnæus, Syst. Nat. ed. x. p. 128 (1758 : "Habitat in Europæ maritimis." Typ. loc. Sweden, ex 'Fauna Suecica,' 99).

♂ ad. Ustkutsk, 10. vi. 1903. "Iris yellow; bill and feet slate-black." (No. 48.)

22. *CLANGULA HYEMALIS* (L.)*.

Anas hyemalis Linnæus, Syst. Nat. ed. x. p. 126 (1758 :

* *Harelda glacialis* of authors who do not care for strict priority of
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“Habitat in Europa et America arctica.” Typ. loc. Sweden, from first quotation “Fn. Suec. 95”).

♀ ad. Mouth of Lena River, 12. vii. 1903. “Eye light hazel; legs and toes fleshy-slate-coloured, toes lighter fleshy, webs black; bill dull olive-green, top of culmen black.” (Nos. 266, 267.)

23. *GLAUCIONETTA CLANGULA* (L.).

Anas clangula Linnæus, Syst. Nat. ed. x. p. 125 (1758: “Habitat in Europa.” Typ. loc. Sweden, ex ‘Fauna Suecica,’ 100).

♀ ad. Miankiaria River, Lena River, 23. vii. 1903. “Bill black; legs orange, with blackish-brown webs and claws; iris ivory-white with a yellow tinge.” (No. 350.)

24. *ARCHIBUTEO LAGOPUS PALLIDUS* Menzb.

Archibuteo pallidus Menzbier, Orn. du Turkestan, i. p. 163 (1888: Siberia, Karatau, Vernoy).

♂ ♀. Bulun, 17. vii. 1903. (A mated pair.) “Iris pale hazel; toes chrome-yellow, nails blackish; cere chrome-yellow; bill bluish horn-grey.” (Nos. 293, 294.)

It seems that Siberian specimens of *Archibuteo* are, as a rule, paler, especially on the head, scapulars, wing-coverts, and tail, than Scandinavian and North-Russian examples. I have therefore provisionally adopted Menzbier’s name for the Siberian form.

[This pair of Buzzards had a nest in a cliff on the river some 300-400 ft. above the water. Both birds flew savagely at the strangers.]

25. *EUTOLMAËTUS PENNATUS* (Gm.).

Falco pennatus Gmelin, Syst. Nat. i. p. 272 (1788).

♂ ad. Gigalowa, 17. viii. 1903. “Iris orange.” (No. 398.)

[The call was made up of four varied creaky notes, with a normal note leading.]

names. The genus *Clangula* Leach, in Ross’s Voy. Discov., App. p. xlviiii, was so obviously created for the Long-tailed Duck that discussion about it is, in my opinion, unnecessary.

26. *MILVUS MELANOTIS* Temm. & Schleg.

Milvus melanotis Temminck & Schlegel, Siebold's Fauna Japon., Aves, p. 14, pls. 5, 5 B (1844: Japan).

♂ ad. Lena River, 30. vi. 1903. "Iris dull yellow; bill blackish, cere bluish; legs bluish, nails black." (No. 155.)

I am not certain that *M. melanotis* is a representative of the *korschun*-group.

27. *FALCO PEREGRINUS LEUCOGENYS* Brehm.

Falco leuco-genys Brehm, Naumannia, 1854, p. 51 (first description, apparently from stray birds from Germany, but locality not mentioned) (*cf.* Menzbier, Ibis, 1884, p. 284).

♀ ad. Between Gigansk and Bulun, 21. vii. 1903. (No. 318.) "Iris brown."

Pullus (young of the above). (No. 319.) "Eye bluish, cere bluish creamy; bill, legs, and nails delicate bluish creamy, with a deeper tinge of blue on the nails."

[Three nests of this Hawk were observed in the cliffs between Yakutsk and Bulun. One found at Gigansk contained three young. They were simply lying upon the sand on a ledge of the river-cliff, which, in this case, was easily accessible. The accumulated débris of the sandstone was their only bed. Two of the young are to be reared by the captain of our steamboat for falconry purposes in Yakutsk. In the example secured I find that the middle toe of the left foot shews an old break and a setting of the bone at right angles.]

28. *CERCHNEIS VESPERTINUS AMURENSIS* (Radde).

Falco vespertinus var. *amurensis* Radde, Reisen in O.-Sibirien, ii. p. 102, pl. 1 (1863).

♀ ad. Zarkarminski, 8. vi. 1903. "Legs and feet orange; bill bluish, merging into yellowish at base; iris hazel."

29. *ASIO OTUS* (L.) (? subsp.).

Strix otus Linnæus, Syst. Nat. ed. x. p. 92 (1758: "Hab. in Europa." Typ. loc. Sweden).

Ad. (not sexed). Prokofskoa, Lena River, 4. viii. 1903. (No. 364.)

I believe that Siberian specimens are lighter than European; but more material would be necessary to decide this question.

30. ASIO ACCIPITRINUS (Pall.).

Strix accipitrina Pallas, Reise Russ. Reichs, i. p. 455.

♀. Lena River, 14. vi. 1903. (No. 71.)

31. APUS PACIFICUS (Lath.).

Hirundo pacifica Latham, Index Orn., Suppl. p. 58 (1801: "Habitat in Nova Hollandia").

♂ ♀ ad., 2 young (full-grown) from nest. Yakutsk, 25, 27. vi., 2. viii. 1903. "Bill black; iris blackish; foot reddish brown in the young, blackish in the old birds." (Nos. 134, 355, 356, 357.)

[In Yakutsk (27. vi. 1903) these Swifts were nesting upon beams under the market-place verandahs as well as amongst them. They congregate in large numbers, but do not breed in close company. They fly quickly, soar well, and have a single shrill note. The bird has a strong grasp (with its four toes in the same plane), which is enough to pierce the fingers and draw blood. The nest consists of a few straws and feathers cemented by saliva. The eggs were 2 or 3 to a clutch. There was much difficulty in securing specimens of Swifts and Swallows. The people have a superstitious fear about disturbing them. The Chief of Police in Yakutsk, to whom I am indebted, arranged for a youth to accompany me at dusk to the quietest part of the market-place to obtain specimens.

In the same place, on Aug. 1st, the young were just leaving the nest. One fully-fledged bird was miserably thin. There was scarcely any fatty tissue about its body and the sternum was but covered with dwarfed muscles. A second young bird was particularly fat. The parents occasionally worry the Feather-toed Swallows which associate with them in nesting.

This species was not met further down the river than Yakutsk.]

32. *CUCULUS CANORUS TELEPHONUS* Heine.

Cuculus borealis Pallas, Zoogr. Rosso-Asiat. i. p. 443 (1831 : partim! "Per universam Rossiam et Sibiriam." Pallas's name *borealis* cannot be accepted for the Siberian Cuckoo. Though it is by no means a "nomen nudum," as supposed by Tschusi, it is only given as a new name to Linnæus's *Cuculus canorus*).

Cuculus telephonus Heine, Journ. f. Orn. 1863, p. 352 (Japan).

Cuculus canorus johanseni Tschusi, Orn. Jahrb. 1903, p. 165 (Tomsk in Siberia).

Two Cuckoos were obtained. They differ from European examples by the very narrow bars on the under side, the scanty spotting on the under tail-coverts, and the rather long wings (230 and 233 mm.). It seems to me that Siberian, Kamtschatkan, and Japanese Cuckoos are similar, and in that case their name would be *Cuculus canorus telephonus*. If the Japanese form were distinguishable, the Siberian form would be called *C. c. johanseni*.

♂ ad. Ustkutsk, 12. vi. 1903. "Bill blackish, base of lower mandible yellowish; feet yellow; iris blackish." (No. 38.)

Yakutsk, 22. vi. 1903. (No. 159.)

33. *CUCULUS SATURATUS* Blyth.

Cuculus saturatus Blyth, Journ. As. Soc. Beng. xii. p. 942 (1843 : ex Hodgson, MS. : India).

♀ ♀. Lena River, 20 miles north and a few miles south of the Arctic Circle. "Legs orange; bill slate-coloured, utmost base of mandible orange; iris yellow." The colour of the iris is different in *C. canorus* and *C. saturatus*.

34. *DENDROCOPUS MAJOR* (L.).

Picus major Linnæus, Syst. Nat. ed. x. p. 114 (1758 : "Habitat in Europa." Typ. loc. Sweden).

♂ ad. Zarkarminski, 8. vi. 1903. (No. 21.)

2 ♂ ad. Ustkutsk, 12. vi. 1903. (Nos. 40, 72.)

1 ♂, 2 ♀ ad. Yakutsk, June 1903. (Nos. 122, 143, 158.)

2 pulli. Yakutsk, 23. vi. 1903. (Nos. 123, 124.)

It seems to me now that the Siberian Great Spotted Woodpeckers (except those from the furthest east) are indistinguishable from the typical *D. major* of Sweden and North Russia. Hargitt (Cat. B. xviii.) mixed the Kamtschatkan form with the Siberian. In no case, however, can Pallas's name *cissa* be used for the Siberian form, because Pallas did not give the name *cissa* to the Siberian form as distinguished from the true *major*; but his name was to be merely a more suitable name for Linnæus's *Picus major*, as was the case with many other Pallasian names. The diagnosis does not refer to the Siberian form in particular, and the distribution is: "Per omnem Rossiam et Sibiriam."

[Five nestlings were found placed in the hollow of a fir-tree about twenty feet from the ground, the locality being some twenty miles west of Yakutsk. They were seven days old, approx. This species was observed to be well distributed between Yakutsk and Gigalowa.]

35. PICUS CANUS PERPALLIDUS Stejn.

Picus canus perpallidus Stejneger, Proc. U.S. Nat. Mus. 1886, p. 107 (Ussuri).

♂ ad. Upper Lena River, 7. vi. 1903. (No. 25.)

The Siberian Woodpeckers belonging to this species are so obviously paler and greyer above, greyish and not greenish below, that Hargitt's remarks in 'Ibis,' 1888, pp. 19-21, are incomprehensible. Whether it will be possible to separate *P. c. yessoënsis* and *P. c. perpallidus* is another question, which I cannot answer at present. If they are not separable, the name *yessoënsis* would have to embrace them both.

36. DRYOCOPUS MARTIUS (L.).

Picus martius Linnæus, Syst. Nat. ed. x. p. 112 (1758: "Habitat in Europa." Typ. loc. Sweden).

♂ ad. Upper Lena River, 8. vi. 1903. (No. 28.)

[This specimen was shot while feeding upon the ground. It has a weird and highly pitched note in addition to sharp brief notes. The species was met between Gigalowa and Verkolensk.]

37. *PICOIDES TRIDACTYLUS*, subsp.?

♀ ad. Yakutsk, 23. vi. 1903. (No. 131.)

The one female is in too bad condition to decide to which subspecies it belongs.

38. *IYNX TORQUILLA* L.

Iynx torquilla Linnæus, Syst. Nat. ed. x. p. 112 (1758 : "Habitat in Europa." Typ. loc. Sweden).

♀ ad. Olekminsk on the Lena River, 6. viii. 1903. (No. 379.)

39. *MUSCICAPA GRISEICTICTA* (Swinh.).

Hemichelidon griseisticta Swinhoc, Ibis, 1861, p. 330 (Amoy).

♂ ad. Upper Lena River, 8. vi. 1903. "Legs and bill black." (No. 44.)

40. *MUSCICAPA PARVA ALBICILLA* Pall.

Muscicapa albicilla Pallas, Zoogr. Rosso-Asiat. i. p. 462 (1831 : Dauria).

♀. Gigalowa, 17. viii. 1903. "Bill, eye, and legs black." (No. 394.)

41. *PRATINCOLA RUBICOLA MAURA* (Pallas).

Motacilla maura Pallas, Reise, ii. Anhang, p. 708.

♀ ad. (erroneously sexed "♂"). Bulun, 6. vii. 1903. (No. 187.)

♂ ♀ juv. Olekminsk, 6. viii. 1903. (Nos. 374, 375, 376, 378.)

42. *TURDUS MUSICUS* L.

Turdus musicus Linnæus, Syst. Nat. ed. x. p. 169 (1758 : "Habitat in Europæ sylvis." Typical locality Sweden, as the diagnosis and first quotation are from 'Fauna Suecica,' 189).

Turdus iliacus auctorum, nec Linnæus, 1758 !

There can be no doubt whatever that Linnæus in 1758 described the Redwing as *Turdus musicus*. His diagnosis is: "*Turdus alis subtus ferrugineis, linea superciliarum albicante.*" Of *Turdus iliacus* (= *Turdus musicus* auctorum, Song-Thrush), he says: "*alis subtus flavescens*" and "*linea nulla superci-*

liorum alba." Unfortunately the two names have since been reversed, and it is time that this old error should be rectified and the names used in their original sense. *Turdus iliacus* sings in our English parks and gardens, while *Turdus musicus* is a winter migrant to this country.

♀ ad. et pull., Bulun, 6. vii. 1903. (Nos. 195, 196, 198.)

♂ ad. 100 miles up the river from Bulun, 5. vii. 1903.

The nestlings have the red on the sides of the breast and under the wings paler and yellower, almost as in the Song-Thrush.

[These birds had a nest on July 7th in the jagged part of a broken fir-tree near the ground. The male (the female being shot) saw to the removal of the young to a more secure hiding-place. We found these birds rather shy.]

43. *TURDUS NAUMANNI* Temm.

Turdus naumanni Temminck, Man. d'Orn. ed. 2, ii. p. 170 (1820).

3 ad., 6 pulli, and young from Yakutsk and Olekminsk on the Lena River. Young from 6. vii. to 4. viii. 1903.

Ad.: "Iris brownish; bill deep brownish, with base of lower mandible and cutting edge yellow. Legs yellowish brown." Pullus: "Bill nut-brown, yellowish at base. Eye brown. Legs very pale brown." (Nos. 84, 125, 126, 146, 144, 363, 359, 385.)

The young bird in first plumage is very different from the adult. The fore-neck and chest are heavily spotted with brownish black, the upper surface is spotted with pale buff and blackish-brown spots.

[Evidently I was standing near the nest of this bird when my attention was first attracted to it, for it flew restlessly from tree-top to tree-top after approaching me quickly from a distance.]

44. *TURDUS DUBIUS* Bechst.

There are also three other young Thrushes from Bulun (Nos. 185, 193, and 230), which are much like the young of *T. naumanni*, but much blacker above, and have the tails

blackish brown without rufous. They can only be the young of *Turdus dubius*, but no parent birds were obtained.

45. *TURDUS PILARIS* L.

Turdus pilaris Linnæus, Syst. Nat. ed. x. p. 168 (1758 : "Habitat in Europa." Typ. loc. Sweden).

Common at Yakutsk and Prokofskoa. Young ready to leave the nest 20. vi. 1903. (Nos. 90, 91, 111, 118, 121, 128, 137, 142, 154, 360, 361.)

46. *CYANECULA SUECICA SUECICA* (L.).

Motacilla suecica Linnæus, Syst. Nat. ed. x. p. 187 (1758 : "Habitat in Europæ alpinis").

2 ♂ ad., 5 ♀, 2 juv. From Bulun to the mouth of the Lena. (Nos. 182, 189, 236, 237, 240, 250, 251, 297, 313.)

These are typical *suecica*, not the paler "*discessus*" of Madarász.

[Between the ball of the eye and the skin there was living a long yellow worm quite $\frac{3}{4}$ " in length; other examples of this species had a similar worm in the same region. Adult males I found to be very shy.]

47. *SYLVIA CURRUCA* (L.).

Motacilla curruca Linnæus, Syst. Nat. ed. x. p. 184 (1758 : "Habitat in Europa." Typ. loc. Sweden).

3 ♂, 1 ♀ ad. Ustkutsk, Olekminsk, and other places. "Bill brown. Legs bluish-slate-coloured. Iris dark brown." (Nos. 34, 60, 74, 373.)

It seems to me that Siberian Lesser Whitethroats are indistinguishable from European *S. curruca*. According to the books they should be *S. affinis* Blyth, but I do not think that this is correct.

48. *PHYLLOSCOPUS FUSCATUS* (Blyth).

Phillopneuste fuscata Blyth, Journ. As. Soc. Bengal, xi. p. 113 (1842: Calcutta).

3 ♂ ad. Olekminsk, 18. vi., 6. viii. 1903, and 100 miles above Yakutsk. "Legs pale brown; upper mandible

blackish, lower yellowish with blackish tip. Iris dark brown." (Nos. 83, 109, 365.)

I have called this species *Phylloscopus fuscatus*, as it can hardly be placed in the same genus with *Luscinola melanopogon*. The latter is a close ally of the Reed-Warblers, and not very different essentially from them, while *fuscatus* seems to be a *Phylloscopus* with a somewhat different wing-formula. It requires a close study of these birds to decide upon their genera; all that I can say at present is that *fuscatus* is either a *Phylloscopus* or, if generically separable, might be called *Herbivocula*, but not *Luscinola*.

[This bird sings upon shrub-tops in the scrub. It utters its notes rapidly, strongly, and sweetly, the song being akin to that of *Acrocephalus* in Australia, but not so powerful.]

49. PHYLLOSCOPUS TROCHILUS (L.) (? subsp.).

Motacilla trochilus Linnaeus, Syst. Nat. ed. x. p. 188 (1758: "Habitat in Europa." Typ. loc. Sweden).

♂ ♀ ad. Bulun, 16, 17. vii. 1903. (Nos. 287, 288, 289, 296, 295.)

These examples are very pale and might form another subspecies.

50. PHYLLOSCOPUS BOREALIS (Blas.).

Phyllopneuste borealis Blasius, Naumannia, 1858, p. 313 ("Mer d'Ochotsk").

♂ ad. 20 miles north of the Arctic Circle, 4. vi. 1903. (No. 176.)

3 ♂ ad. Olekminsk, 100 miles above Yakutsk, 18. vi. 1903. (Nos. 87, 103, 107.)

♂ ad. 100 miles north of Yakutsk, 29. vi. 1903. (No. 162.)

♀ ad. Between Bulun and Gigansk, 20. vii. 1903. (No. 320.)

♂ ad. Upper Lena River, 9. vi. 1903. (No. 43.)

[This species fills the woods with song almost to the exclusion of other birds, which certainly are not plentiful here at this time of the year. When flying it has a chattering note.]

51. PHYLLOSCOPUS SUPERCILIOSUS (Gm.).

Motacilla superciliosa Gmelin, Syst. Nat. i. p. 975 (1788).

6 ♂ ♀. Olekminsk, Vitim, Bulun. (Nos. 77, 286, 366,

367, 368, 369.) "Bill deep yellowish brown above, chrome-yellow on lower mandible; legs slaty brown; iris dark brown."

52. ACCENTOR MONTANELLUS (Pall.).

Motacilla montanella Pallas, Reise d. versch. Prov. d. Russ. Reichs, iii. p. 695 (1773: Dauria).

♀ ad. Just below Bulun, 14. vii. 1903. (No. 305.)
"Bill blackish; legs pale brownish; eye dark."

53. SAXICOLA ŒNANTHE (L.).

Motacilla œnanthe Linnæus, Syst. Nat. ed. x. p. 186 (1758: Europa. Typ. loc. Sweden).

2 ♂, 2 ♀. Bulun and mouth of river. (Nos. 208, 223, 301, 302.)

Nestling just out of nest. Mouth of river, 13. vii. 1903. (No. 303.)

54. LANIUS CRISTATUS L.

Lanius cristatus Linnæus, Syst. Nat. ed. x. p. 93 (1758: Bengal. Ex Edwards, 54).

3 ♂ ad. Upper Lena River, 8, 9. vi. 1903, Olekminsk, 6. viii. 1903. (Nos. 24, 30, 381.) "Legs black. Bill bluish black. Iris hazel."

3 pulli. Prokofskoa, 4. viii. 1903; Olekminsk, 6. viii. 1903. "Bill dark brown above, light creamy below. Legs bluish slate-coloured. Iris dark." (Nos. 362, 382, 383.)

[This bird has a series of low grinding notes as if a scissors-grinder were at work. Suddenly it repeats a highly pitched and sharp "caw, caw, caw."]

55. PARUS MONTANUS BAICALENSIS Swinh.

Parus baicalensis Swinhoe, Ann. & Mag. Nat. Hist. ser. 4, vol. vii. p. 257 (1871: Baikal).

1 ♀, 1 ♂? Upper Lena River, 9, 10. vi. 1903. (Nos. 42, 45.)

1 ♀? Olekminsk, 6. viii. 1903. (No. 380.)

These birds are undoubtedly a form of the *montanus* (or *borealis*) group. They agree fairly well with *P. baicalensis*,

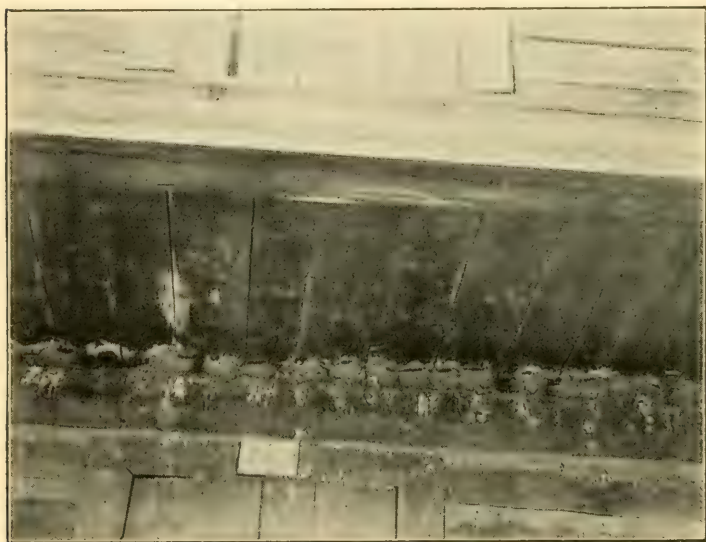
though they are rather more grey on the back, but the skins are so bad that slight differences cannot well be seen.

56. *DELICHON URBICA WHITELEYI* (Swinh.).

Chelidon whiteleyi Swinhoe, P. Z. S. 1862, p. 320 (Pekin).

The generic name *Chelidon* being preoccupied (by Forster), the name *Delichon* Moore must, of course, be used for the genus. Pallas's name "*Hirundo lagopoda*" cannot be used for the Siberian form of the House-Martin. Pallas made the name, not for the Siberian form in particular, but for

Text-fig. 2.



Nests of *Delichon urbica whiteleyi*.

Linnaeus's *Hirundo urbica*. As the habitat, he gives "in omni Rossia et Siberia." The fact that he adds a detailed description of a Daurian example does not alter this.

Yakutsh, Bulun, Gigansk. Nearly full-grown nestlings in nests on 24. vii. 1903, and 2. viii. 1903. (Nos. 97, 98, 99, 332 to 338, 102, 292, 354, 358.)

[In Yakutsk on June 19th I counted forty-two nests of this species in a space of seven yards under a verandah. During

the day, in various spots, I counted fourteen dead birds suspended from or cemented to their own nests. They appear to get their feet entangled in the hair and mud and cannot get free. Their mates go on building, and finally the dead birds get from one- to three-fourths of their bodies quite covered by the mud wall of the nest. The posterior half is the hidden part. Eggs were hard-set on June the 19th here. Ninety versts below Verlouis, on July 27th, young were still in the nests.]

57. CLIVICOLA RIPARIA DILUTA (Sharpe).

Cotile diluta Sharpe, Monogr. Hirund. i. p. 63 (1894: near Tashkend).

4 ♂ ♀. Zarkarminski, 8. vi. 1903. (Nos. 12, 13, 14, 18.)
“Bill and feet black.”

Text-fig. 3.



Nests of *Clivicola riparia diluta*.

These examples appear to be quite adult and in good plumage, not worn, as might be expected. They differ

conspicuously from the European *Clivicola riparia riparia* in being paler above, and having the præpectoral band paler and less conspicuous. Their wings measure 100 to 105 mm.

[The present species was found along the course of the river as far down as Bulun. At Gigalowa, on July 7, the birds were preparing to nest in their old homes, and in a few cases had already laid their eggs, while in others the grasses had been placed on a flooring 18 inches within the tunnel-mouth. The cavities at the ends of the tunnels are broad and flat; not rounded, and 4 or 5 inches across on average. One nest contained a dead adult bird, another an egg of last season. The egg is white, ovate, 0·7 in. long, 0·5 in. broad. This nesting-site ranged between five and ten feet above the water's edge. A second bank was riddled with holes for a distance of two hundred yards, two to three feet from the top. A third and very high cliff shewed in its centre the nesting-site of a large colony.

Immediately below Ustkutsk, in the course of a few days' boating, miles of actual nest-line were passed (12. vi. 1903). On calm days the twitterings of the birds during their rather heavy-looking flight almost filled the air. Young just hatched were found in Yakutsk on July 31st.]

58. *MOTACILLA ALBA OCULARIS* Swinh.

Motacilla ocularis Swinhoe, Ibis, 1860, p. 55 (Amoy).

2 ♂ ad. Vitim, 16. vi. 1903. (Nos. 73, 83.)

♂ ad. Olekminsk, 16. vi. 1903. (No. 100.)

♀ ad. Yakutsk, 25. vi. 1903. (No. 140.)

♂ ad. 100 miles up the river from Bulun, 4. vii. 1903. (No. 184.)

♂ ad. A few miles south of the Arctic Circle, 3. vii. 1903. (No. 188.)

Young birds just out of nests from most of these places and from the mouth of the river. (Nos. 101, 127, 139, 141, 252.)

[This species was found to be common along the river. In Yakutsk (20. vi. 1903) I obtained a young bird essaying an early flight. Twenty miles west of Yakutsk I found a nest

upon the ground, hidden under a log, and containing six eggs.]

59. *MOTACILLA ALBA BAICALENSIS* Swinh.

Motacilla baicalensis Swinhoe, P. Z. S. 1871, p. 363 (Baical).

1 ♂ ad. Gigalowa, 7. vi. 1903. (No. 8.)

It is very interesting that at Gigalowa, where, according to Mr. Hall, the fauna changes, the more southern form (*M. a. baicalensis*) is found, while at all the more northern places it is replaced by *M. a. ocularis*.

60. *MOTACILLA FLAVA TAIVANA* (Swinh.).

Budytes taiwanus Swinhoe, P. Z. S. 1863, p. 334 (Formosa).

♀ ad. 100 miles up river from Yakutsk, 19. vi. 1903. (No. 96.)

♂ ad. Yakutsk, 28. vi. 1903. (No. 147.)

“Bill, legs, and feet black.”

Motacilla flava taiwana breeds in parts of Siberia and winters in Formosa, South China, Malacca, &c. Probably it represents *M. flava borealis* in the more southern parts of Siberia, and might be regarded as a subspecies of the *flava*-group.

61. *MOTACILLA FLAVA BOREALIS* Sundev.

Motacilla flava borealis Sundevall, Öfv. K. Vet.-Akad. Förh. Stockh. 1840, p. 53 (Scandinavia).

Common on the Lower Lena from Gigansk to Bulun and at the mouth of the river. Young almost ready to leave the nest were found in the first week of July. (Nos. 191, 194, 197, 207, 239, 243, 246, 248, 253, 255, 321, 322, 343, 344, 345.)

62. *MOTACILLA BOARULA MELANOPE* Pall.

Motacilla melanope Pallas, Reise, iii. p. 696 (Dauria).

2 ♂ ad. Gigalowa, Upper Lena River, 7, 8. vi. 1903. (Nos. 23, 26.)

63. *ANTHUS SPINOLETTA BLAKISTONI* Swinh.

Anthus blakistoni Swinhoe, P. Z. S. 1863, p. 90 (Yangtze River).

♂ ad. Bulun, 8. vii. 1903. "Bill black; legs brown; eyes dark."

64. *ANTHUS CERVINUS* (Pall.).

Motacilla cervina Pallas, Zoogr. Rosso-Asiat. i. p. 511 (1831: E. Siberia).

Bulun, mouth of the river; common. (Nos. 190, 206, 242, 245, 249, 254, 256, 257, 258, 262, 263, 279, 280, 281, 282, 283, 316, 317.)

"Bill brown, with base of the lower mandible yellowish; legs pale; iris dark brown."

I suppose this to be only a subspecies of our Meadow-Pipit.

[These Pipits have a rather melancholy note.]

65. *ANTHUS TRIVIALIS TRIVIALIS* (L.).

Alauda trivialis Linnæus, Syst. Nat. ed. x. p. 166 (1758: Sweden).

Common at Gigalowa, Ustkutsk, and Vitim. (Nos. 5, 9, 49, 51, 59, 75, 79.)

It is interesting to find here, still in the Baikal district, the European form, while further north it is represented by *A. trivialis maculatus*.

66. *ANTHUS TRIVIALIS MACULATUS* (Oates).

Pipastes maculatus Oates, B. Brit. Burmah, i. p. 171 (1883: ex Hodgs. MS., Burma).

It seems that Mr. Oates was the first to describe properly the Pipit now known under the name of *maculatus*. Hodgson never diagnosed it.

Gigansk, Nahtynskaja, and 200 miles north of Yakutsk. (Nos. 153, 339, 341, 342, 391.)

"Upper mandible dark brown; legs and lower mandible pale brown."

67. *ANTHUS RICHARDI* Vieill.

Anthus richardi Vieillot, Nouv. Dict. d'Hist. Nat. xxvi p. 491 (1818: France).

Found commonly on the Upper Lena at Ustkutsk, Yakutsk, and Gigalowa. (Nos. 27, 36, 52, 54, 58, 138, 161, 392.)

“Legs pale brown; upper mandible dark brown, lower pale brown; iris dark brown.”

Though these specimens can apparently be only *Anthus richardi*, none of them have the prodigiously long hind claw found in so many examples of Richard’s Pipit.

68. *ALAUDA ARVENSIS* (subsp.).

Three Skylarks were obtained at Yakutsk in June 1903. They are very different from the European *A. arvensis arvensis* and too brown for *A. arvensis cantarella*. I cannot, from three rather worn summer birds, come to a final conclusion about them, but I believe them to belong to *Alauda arvensis intermedia* Swinhoe, described (P. Z. S. 1863, p. 89) from Shanghai, where, however, I should think it would be a winter visitor. (Nos. 114, 115, 136.)

69. *CALCARIUS LAPPONICUS* (L.).

Fringilla lapponica Linnæus, Syst. Nat. ed. x. p. 180 (1758: Lappland).

♂ ♂ ♀ ad. et pull. Just out of nest at the mouth of the river, 12. vii. 1903. (Nos. 259 to 265.)

“Eyes and legs deep brown; bill yellow, with extreme tip black.”

70. *EMBERIZA CHRYSOPHRYS* Pall.

Emberiza chrysophrys Pallas, Reise d. versch. Prov. d. Russ. Reichs, iii. p. 698 (1776: Daurian Alps).

One male adult of this rare Bunting was obtained at Gigalowa on June 7th, 1903. (No. 6.)

“Iris hazel; bill blackish brown, base of lower mandible pale brown; legs pale brownish cream-coloured.”

71. *EMBERIZA PUSILLA* Pall.

Emberiza pusilla Pallas, Reise d. versch. Prov. d. Russ. Reichs, iii. p. 697 (1776: Daurian Alps).

This species was frequently met with twenty miles north of the Arctic Circle, at the Miaukiaria River, at Gigansk and Bulun. (Nos. 173, 174, 175, 181, 204, 205, 220, 221, 291, 298, 299, 307, 308, 309, 310, 328, 329, 346, 347.)

Half-feathered young were taken from nests on 4. vi.

and 5. vii. 1903; young birds in first plumage were shot on 14, 22. vii. 1903.

72. *EMBERIZA RUTILA* Pall.

Emberiza rutila Pallas, Reise d. versch. Prov. d. Russ. Reichs, iii. p. 698 (1776: "In salicetis ad Ononem, versusque Mongoliae fines").

♂ ad. Zarkarinski, 8. vi. 1903. (No. 16.)

"Legs light brown; base of lower mandible light brown, upper mandible and tip of lower dark brown."

73. *EMBERIZA LEUCOCEPHALA* S. G. Gm.

Emberiza leucocephalos S. G. Gmelin, Nov. Comm. Acad. Sci. Imp. Petrop. xv. p. 480, pl. 23. fig. 3 (1771; Astrachan).

From Gigalowa, Ustkutsk, Yakutsk, Olekminsk; full-fledged young, Yakutsk, Olekminsk, 21. vi. 1903. (Nos. 3, 4, 17, 53, 61, 62, 86, 112, 113.)

The young bird in first plumage is rufous-brown above with black-brown centres to the feathers; throat, chest, and sides striped with brown; abdomen white; under tail-coverts dull cinnamon with whitish edges; legs yellowish, nails black; bill dark brown, corners of mouth yellow.

74. *EMBERIZA AUREOLA* Pall.

Emberiza aureola Pallas, Reise d. versch. Prov. d. Russ. Reichs, ii. p. 711 (1773: "Hab. in Populetis, insulisque salice luxuriantibus ad Irтин aliosque Sibiriae fluvios").

Found commonly at Gigalowa and other places on the Upper Lena, Ustkutsk, Vitim, Olekminsk, Yakutsk, twenty miles north of the Arctic Circle, Verchoyansk, and Nah-tyuskaja. (Nos. 7, 10, 19, 22, 31, 32, 33, 35, 41, 46, 47, 50, 56, 57, 63, 69, 70, 76, 80, 81, 85, 89, 104, 105, 106, 108, 120, 133, 174, 340, 352, 387.)

[Male and female take part in incubation. The male flew off one nest, fluttered about, and trailed his breast upon the ground within three or four yards of us, as if he had a broken wing. The nests are placed in heads of stumps as well as in low thick bushes very near to or upon the ground. The female is exceedingly shy and will stop in an isolated bush almost until she is driven out. Eggs were fresh on June 18th.

A nest on the ground in the grass at Yakutsk on June 20th was photographed at 3.30 A.M. (text-fig. 4); we got a third set

Text-fig. 4.



Nest of *Emberiza aureola*.

of eggs on June 25th. A further nest containing five hard-set eggs was found 28. vi. 1903 near Yakutsk.]

75. *PASSER MONTANUS SATURATUS* Stejn.

Passer saturatus Stejneger, Proc. U.S. Nat. Mus. viii. p. 19 (1885: described from one (!) specimen from the Liu-Kiu Islands).

1 ♂ ad. Ustkutsk. (No. 64.)

3 juv. Gigalowa, 17. viii. 1903. (Nos. 395, 396, 397.)

East-Siberian birds, like those from the Japanese islands, have generally larger bills than European examples, but the form can hardly be distinguished.

According to Mr. Hall, these birds were very numerous between Vercolensk and Irkutsk.

Mr. Hall says that *Passer domesticus* was nesting in Ustkutsk, 12. vi. 1903, but he omitted to collect specimens.

76. CARPODACUS ERYTHRINUS ERYTHRINUS (Pall.).

Loxia erythrina Pallas, Nov. Comm. Acad. Sci. St. Petersburg. xiv. p. 587, pl. 23. fig. 1 (1770: S. Russia and Siberia).

The "typical" form of the Scarlet Grosbeak was found at Vitim, Olekminsk, Yakutsk, and Verchoyansk. (Nos. 67, 88, 156, 351.)

77. FRINGILLA MONTIFRINGILLA L.

Fringilla montifringilla Linnaeus, Syst. Nat. ed. x. p. 179 (1758: "Habitat in Europa." Typ. loc. Sweden, as the diagnosis and first quotation are taken from the 'Fauna Suecica').

1 ♂ ad. Vitim, 16. vi. 1903. (No. 78.)

1 ♂ ad., 1 ♀ ad., 2 juv. Olekminsk, 18. vi., 16. viii. 1903. (Nos. 92, 370, 371, 372.)

1 ♀ ad. Yakutsk, 21. vi. 1903. (No. 110.)

78. ACANTHIS FLAMMEA FLAMMEA (L.).

Fringilla flammea Linnaeus, Syst. Nat. ed. x. p. 182 (1758: "Habitat in Europa." Typ. loc. Norrland in Sweden; ex 'Fauna Suecica,' no. 201).

1 ♂. Yakutsk, 24. vi. 1903. (No. 135.)

5 ad., 3 juv. Bulun, 7, 8. vii. 1903. (Nos. 217, 218, 219, 224, 227, 228, 238, 241.)

1 ♂ ad., 2 ♀ ad., 1 juv. Just below Bulun, 14. vii. 1903. (Nos. 284, 285, 306, 311.)

79. ACANTHIS HOLBOELLII (Brehm).

Linaria holboellii Brehm, Handb. Naturg. Vög. Deutschl. p. 280 (1831: described from winter visitors to Germany).

Found in numbers 20 miles north of the Arctic Circle,

4. vi. 1903 (Nos. 178, 180), at Bulun, 5, 8, 10, 17. vii. 1903 (Nos. 183, 216, 244, 290), and Olekminsk, 6. viii. 1903 (No. 377).

If this form actually occurs during the breeding-season, together with *Acanthis flammea flammea*, we shall have, though reluctantly, to recognise it as a species (*cf.* Vögel d. pal. Fauna, i. pp. 77-80). It is, however, significant that Mr. Hall saw flocks of Redpolls on migration as early as July 20th. Apparently he did not distinguish between the two forms of Redpolls, so that the following notes may refer to either of them.

[A nest containing unfledged young was found placed in a fir tree on July 17th, at Bulun. One bird had two large larvæ, one dipterous fly, and three mosquitoes in its bill. At Gigansk, on July 20th, we saw a stream of Finches travelling southwards. That they were on migration there was no doubt. The little flocks numbered from twelve to twenty birds, with stragglers or newcomers coming in between each flock. They appeared to be mostly of this species as far as I could discover. On August 6th, at Olekminsk, I found it in flocks of fifty birds.]

80. PERISOREUS INFAUSTUS SIBERICUS (Bodd.).

Corvus sibericus Boddaert, Tabl. Pl. Enl. p. 37 (1783: ex Daubenton & Buffon).

♂ ♀. Yakutsk, 23. vi. 1903. (Nos. 130, 132.) "Bill and feet black."

81. NUCIFRAGA CARYOCATACTES MACRORHYNCHA Brehm.

Nucifraga macrorhynchos Brehm, Lehrb. Naturg. europ. Vög. i. p. 103 (1823: "Gebirgswälder des mittl. nördl. Europa und Asien." Type a Siberian migrant).

Ad. & juv. Ustkutsk, 12. vi. 1903. (Nos. 39, 65, 66, 68.)

2 ♂ ad. Nahtyuskaja, 7. viii. 1903. (Nos. 384, 386.)

One of the last two males shews distinct white edges to the inner primaries and secondaries, thus approaching *N. c. kamtschatkensis* of Barrett-Hamilton. I find that the white triangular spots on the wing-coverts are also seen in some

Siberian examples. Though I have recognised *N. c. kamtschatkensis* as a subspecies in my book on Palæartic birds, it is by no means sufficiently established, and a larger series should be compared.

[Two small flocks of half a dozen individuals each were met with, one at Gigalowa and the second a little further down the river. The birds utter a strong squeaking note and appear to prefer the thickets of pines. Those obtained in June were from one flock.]

82. *CORVUS CORONE ORIENTALIS* Eversm.

Corvus orientalis Eversmann, Add. Pall. Zoogr. fasc. ii. p. 7 (1841 : Narym River).

♀ ad. Gigalowa, 7. vi. 1903. (No. 11.)

♂ ad. Yakutsk, 22. vi. 1903. (No. 119.)

♂ ad. 200 miles below Yakutsk, 1. vii. 1903. (No. 157.)

XXXI.—*On Sexual Variation in the Wing of the Lapwing*
(*Vanellus vulgaris*). By F. W. FROHAWK, M.B.O.U.,
F.E.S.

ALTHOUGH the Lapwing is one of the birds most easily obtained in the flesh for six months of the year, yet ornithologists have apparently overlooked a very striking sexual character in the formation of the wing, as there is no reference whatever to it in any of the principal works on British birds. The following remarks may therefore be of sufficient interest to call attention to what I consider to be a good sexual character of this species, and a point probably worthy of consideration in other species possessing a general similarity in pattern and coloration of plumage.

Seebohm in his 'British Birds' says:—"The female Lapwing has less metallic gloss on the feathers, but otherwise scarcely differs from the male, except in having a shorter crest and in having the chin and throat marked with white, the white on the throat of the young females being